MEDICAL ISSUES AND FORCE PRESERVATION

23rd Annual Executive Safety Board/ Executive Force Preservation Board

Facilitated by:
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HQMC - HS

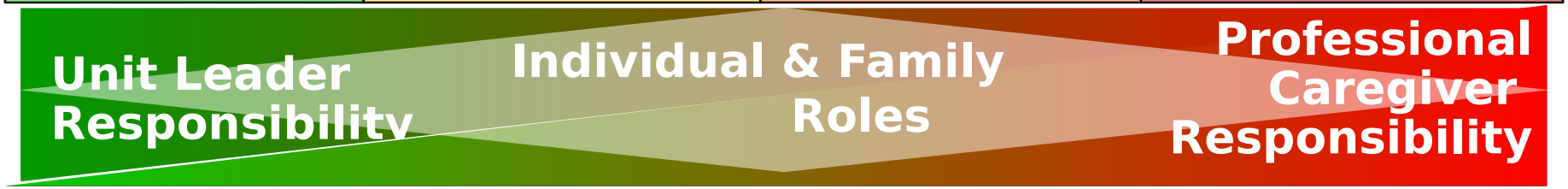
May 24, 2010

Overview

- Combat Stress
- PTSD in detail
- Medical Treatment and Medications
- Break
- Traumatic Brain Injury

COMBAT OPERATIONAL STRESS CONTROL

READY (Green)	REACTING (Yellow)	INJURED (Orange)	ILL (Red)
Fit and Focused	Problems but Likely Meeting Job Expectations	Distressed and Causing Job / Home Problems	Need Professional Assistance to Recover



Leader Tasks
- Strengthen
- Identify
- Mitigate
- Treat
- Reintegrate

Marine and Family
- Come forward and ask for help
- Be alert for concerning changes

Professionals
- Includes Medical and Chaplain
- Most Marines will get better with good

POST TRUMATIC STRESS DISORDER

- **PTSD is like any other clinical diagnosis. It may be identified by:**
  - **Diagnosis by a primary care manager (PCM) at the time of evaluation for an unrelated condition**
  - **Following a deployment related health screening**
    - **PDHA, PDHRA, New “NDAA face to face requirement”**
  - **Self or command referral**
- **IMPORTANT CONCEPTS**
  - **Symptoms**
  - **Screening**
  - **Diagnosis**
  - **Under treatment**

PTSD DEFINITION

A. The person has been exposed to a traumatic event with both of the following:
(1) Experienced actual or threatened death or serious injury
(2) Response involved intense fear, helplessness, or horror

B. The traumatic event is persistently re-experienced:
(1) Recurrent and intrusive distressing recollections or dreams of event
(2) Acting or feeling as if the traumatic event were recurring
(3) Psychological or Physiological distress at exposure to cues that symbolize/resemble event

C. Persistent avoidance of stimuli associated with the trauma and numbing (need 3 or more):
(1) Efforts to avoid thoughts, feelings, or conversations associated with the trauma
(2) Efforts to avoid activities, places, or people that arouse recollections of the trauma
(3) Inability to recall an important aspect of the trauma
(4) Markedly diminished interest or participation in significant activities
(5) Feeling of detachment or estrangement from others
(6) Restricted range of affect (e.g., unable to have loving feelings)
(7) Sense of a foreshortened future

D. Persistent symptoms of increased arousal (need 2 or more):
(1) Difficulty falling or staying asleep
(2) Irritability or outbursts of anger
(3) Difficulty concentrating
(4) Hypervigilance
(5) Exaggerated startle response

Symptoms present for one month or longer and cause distress or impairment in personal or professional life

PDHA/PDHRA Screening

13. Have you ever had any experience that was so frightening, horrible, or upsetting that, IN THE PAST MONTH, you ....

a. Have had nightmares about it or thought about it when you did not want to?	○ No	○ Yes
b. Tried hard not to think about it or went out of your way to avoid situations that remind you of it?	○ No	○ Yes
c. Were constantly on guard, watchful, or easily startled?	○ No	○ Yes
d. Felt numb or detached from others, activities, or your surroundings?	○ No	○ Yes

Marine Resiliency Study (MRS)

- A collaboration across multiple organizations:
  - U.S. Marine Corps
  - Department of Veterans Affairs
  - Navy Medicine
- To follow a large cohort of ground combat Marines throughout an entire deployment cycle
- To learn what factors predict ***risk*** and ***resilience*** for combat stress injuries and stress illnesses **across systems**:
  - Genetic, biological and psychophysiological
  - Psychological and psychiatric
  - Social (unit and family) and spiritual
  - Environmental (stressor exposures)
- To learn how better to ***prevent*** stress illnesses

MRS: Combat Stress Science

- We already know a lot about risk and resilience for stress illnesses like posttraumatic stress disorder (PTSD) in:
  - Civilian victims of accidents or assaults
  - Veterans of past wars
- But no previous research has:
  - Studied combat stress injuries in ground combat Marines
  - Been **prospective** and **longitudinal** (evaluating the same individuals before and after a combat deployment)
  - **Simultaneously** studied biological, psychological, social, and environmental factors
  - Attempted to plot **trajectories** across the Combat Operational Stress Continuum over time

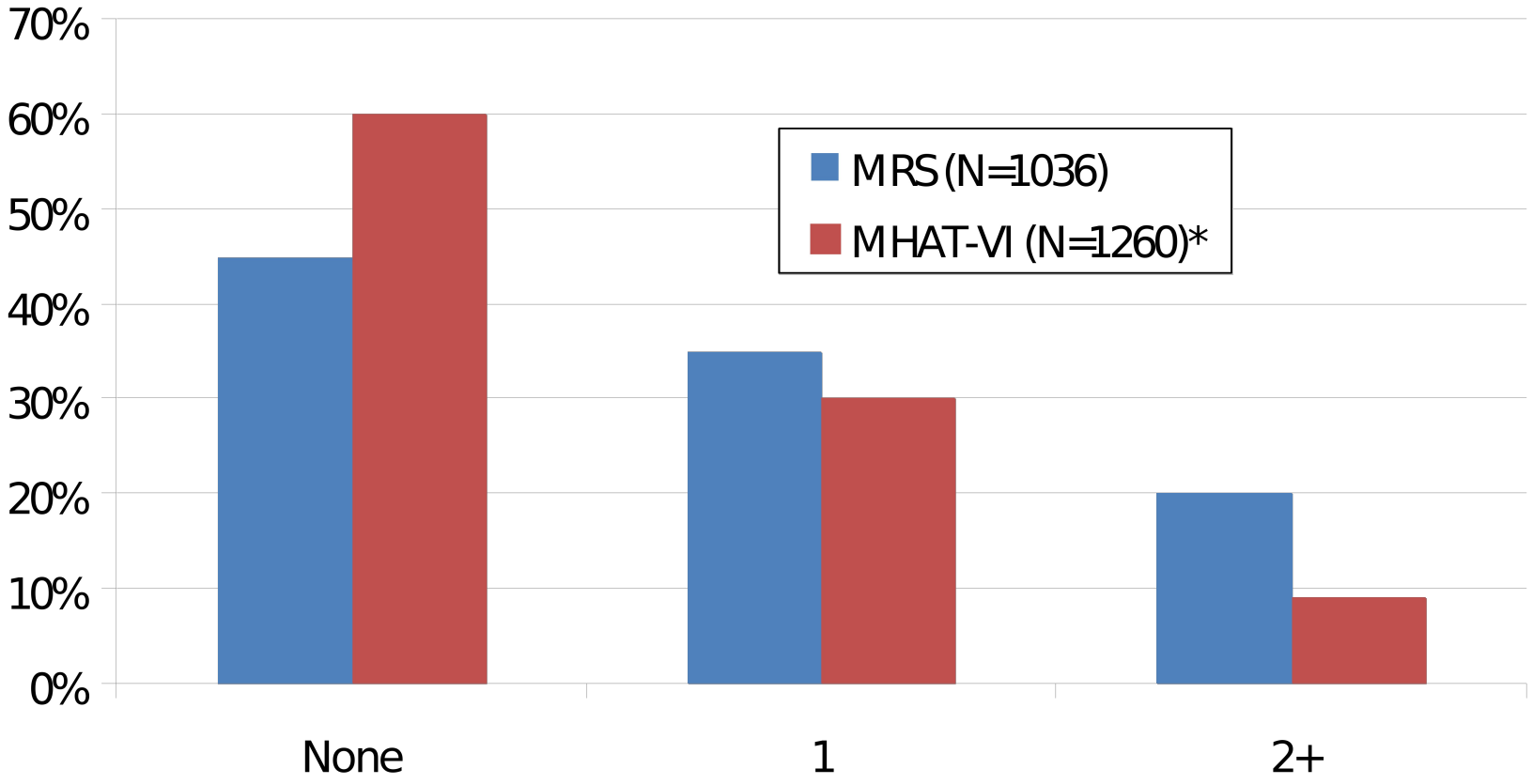
MRS: Methodology

- **Participants**
  - Consenting members of 1st Marine Division infantry battalions from MCAGCC 29 Palms or Camp Pendleton, California
  - Goal: enroll and retain as many members of each participating battalion as possible to ensure representative cohorts
  - Target N = 3000 Marines bound for combat zone deployments

- **Data collection time points**
  - One month before deployment to Iraq or Afghanistan
  - One week post-deployment
  - Three months post-deployment
  - Six months post-deployment

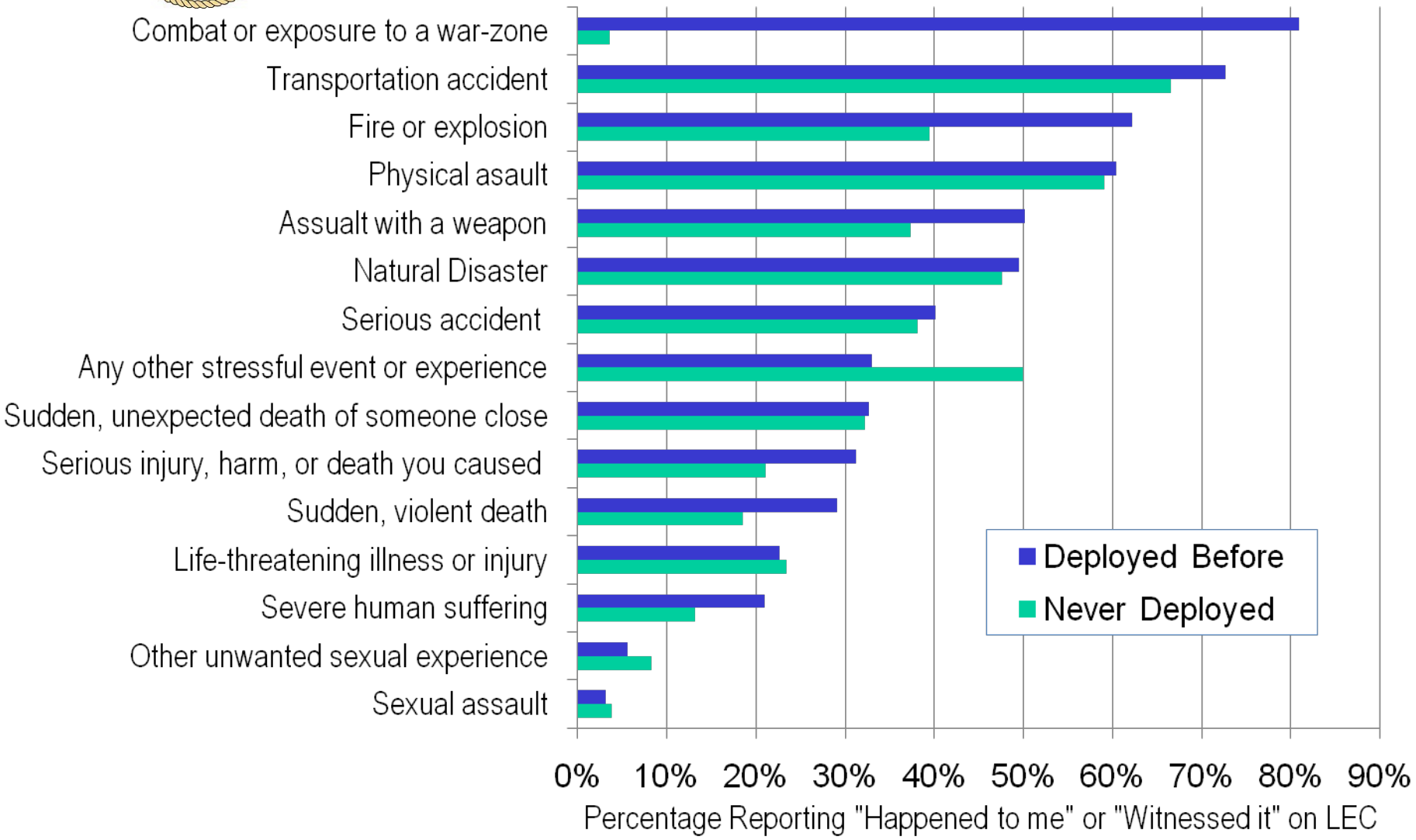
Six-wide semi-permanent data collection trailer at MCAGCC 29 Palms

MRS: Previous Deployments



*U.S. Army Mental Health Advisory Team Report surveying soldiers currently deployed to Operation Iraqi Freedom 07-09 (MHAT-VI), May 2009

MRS: Prior Potentially Traumatic Life Events



MRS: Post-Deployment (T3) Mental & Physical Health Compared to Baseline (T1)

		MRS T1 (N=1036)	MRS T3 (N=815)
Posttraumatic stress	PCL mean score	24.8 (10.6)	23.6 (9.5)
	PTSD by CAPS	5.5%	4.8%
Depression	BDI-II score	8.2 (8.8)	5.2 (7.5)
Anxiety	BAI score	7.4 (8.4)	5.0 (7.8)
Alcohol use	AUDIT score	9.2 (6.5)	6.9 (4.9)
Drug use	DAST score	0.12 (0.02)	0.03 (0.01)

Summary of Approximate Rates

Positive Screen

12-20%

➡

Referral Eval

6-10%

➡

PTSD Diagnosis

4-6%

➡

Under Care

1-2%

Why the Differences?

- Limits of screening
- Severity
- Barriers
  - Stigma
  - Puritan cultural roots
  - Access and work commitments
  - Expectations of therapy

PTSD Therapies

- "PREVENTION"! – Role of leaders in building resiliency
- Cognitive Behavioral Therapy (CBT)
- Prolonged Exposure Therapy (PE)
- Eye Movement Desensitization and Reprocessing (EMDR)
- Group Therapy
- Family Therapy
- Brief Psychodynamic Psychotherapy
- Medications

PSYCHOTROPIC MEDICATIONS OVERVIEW

(09 April 2010)

MEDICATION(S)	USED In the Treatment of…	% Marines Prescribed in theater	% Marines Prescribed in garrison	MHAT 6	MHAT 5	Self Report via Health Behaviors Survey 2008
Sleep Aids: Zolpidem (Ambien), Lunesta and others	Sleep problems, time zone adjustment	2.0%	2.7%	8-14%	17%	7.9%
Anti-depressants: Selective serotonin reuptake inhibitors (SSRIs); Non-SSRI anti-depressants	Depression, PTSD	0.7% (all types)	2.9% (SSRI) 2.0% (other)	3-6%		
Anxiolytics: clonazepam, lorazepam, and propanolol	Anxiety	0.11%	2.1%			
Stimulants: Amphetamine/ dextroamphetamine (Adderrall)	Narcolepsy, attention deficit disorder	0.13%	0.07%	No data	No data	No data
Narcotic Pain	Acute and Chronic Pain	No data	16.7%	No data	No data	No data

Information Sharing

- Health care providers shall balance notification of a member's commander with operational risk management
- Provide the minimum amount of information to satisfy the purpose of the disclosure
  - Diagnosis
  - Description of the treatment prescribed/planned
  - Impact on duty or mission
  - Recommended duty restrictions
  - Prognosis
- Notify a commander when a member presents with a mental health condition in these circumstances:
  - Harm to Self
  - Harm to Others
  - Harm to Mission
  - Special Personnel (Personnel Reliability Program)
  - Inpatient Care
  - Acute Medical Conditions Interfering With Duty
  - Substance Abuse Treatment Program
  - The mental health services are obtained as a result of a command-directed mental health evaluation

Information Sharing

HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT (HIPAA) Source: DoD 6025.18R

- General Rule: A covered entity may use and disclose the protected health information of individuals who are Armed Forces personnel for activities deemed necessary by appropriate military command authorities to assure the proper execution of the military mission.

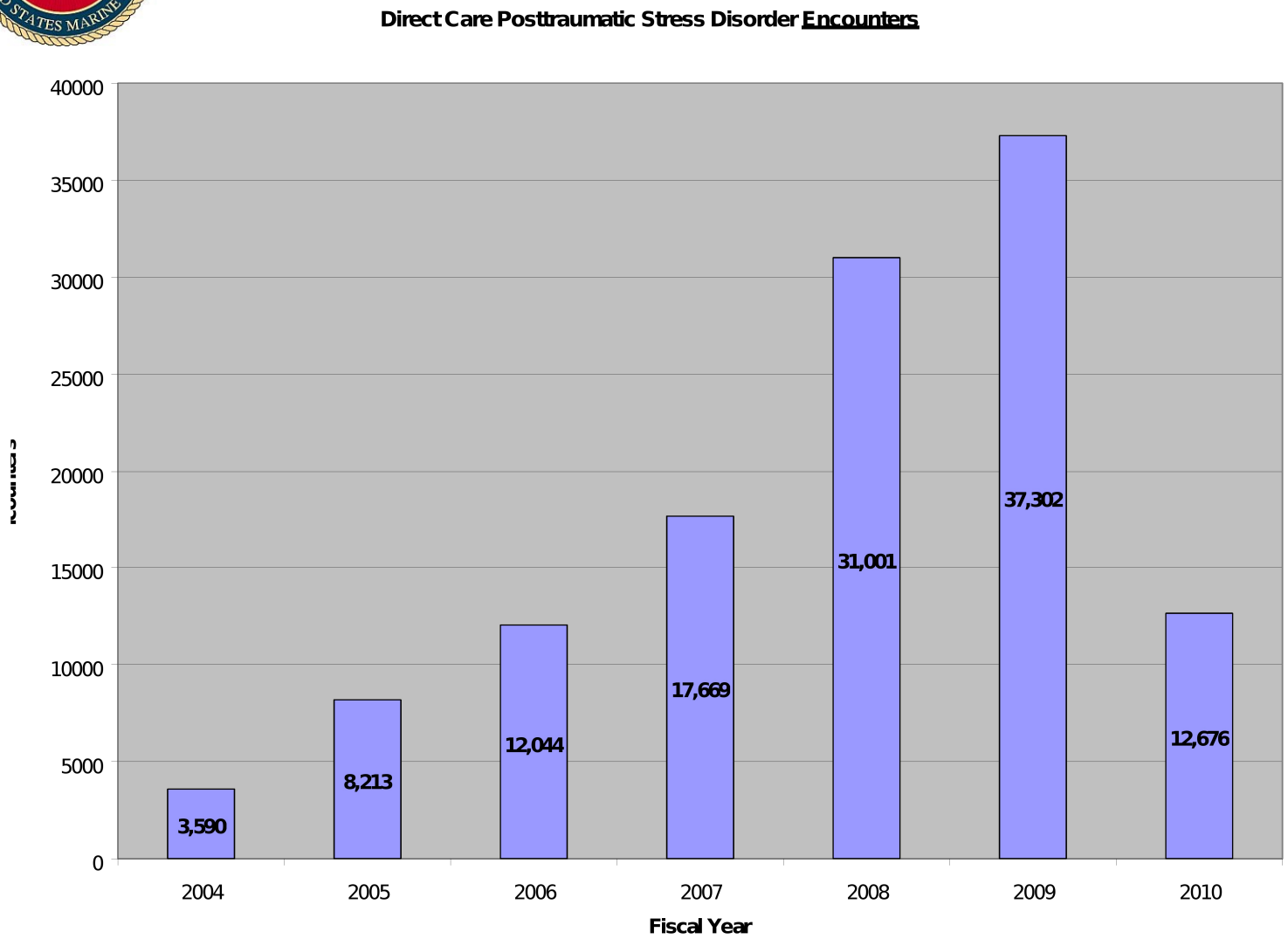
- **Commanders** who exercise authority over an individual who is a member of the Armed Forces, or other person designated by such a commander* to receive protected health information in order to carry out an activity under the authority of the Commander. These activities include:
  - To determine the member's fitness for duty
  - To determine the member's fitness to perform any particular mission, assignment, order, or duty
  - To report on casualties in any military operation or activity in accordance with applicable military regulations or procedures.

*Note: based on individuals, not a blanket designation

Information Sharing

- All politics is local
- IT Tools
  - Electronic Health Record
  - PMART

USMC PTSD MEDICAL VISITS



As of 26 Feb 2010

PTSD Diagnosis / Disability

- **For Fiscal Year 2008, 1822 Marines were found UNFIT by the Physical Evaluation Board and processed for medical separation or retirement**
    - **Of the 1822 UNFIT:**
        - **156 Marines had PTSD as one of multiple diagnoses (8.6% of total UNFIT)**
        - **109 had only the diagnosis of PTSD (6.0% of total UNFIT)**
- **For Fiscal Year 2009, 3401 Marines were found UNFIT by the Physical Evaluation Board and processed for medical separation or retirement**
    - **Of the 3401 UNFIT:**
        - **337 Marines had PTSD as one of multiple diagnoses (9.9% of total UNFIT)**
        - **131 had only the diagnosis of PTSD (3.9% of total UNFIT)**
- **Thus, for FY's 2008 and 2009 of approximately 80,000**

WAY AHEAD

- Focus on the MARINE
- Multidisciplinary – Leaders, Marine Medical, MTF Medical, Chaplains, MCCS, others (COSC and OSCAR/OSCAR extender model)
  - Regular communication between medical personnel and USMC leaders that recognizes each other responsibilities
- Regular medical screenings (PHA, pre/post-deployment surveys and face to face evaluations)
- Support training at all levels in identifying and intervening for Marines and Sailors at-risk for mTBI and the full spectrum of stress related disorders (including PTSD)

BREAK

DoD TBI Definition

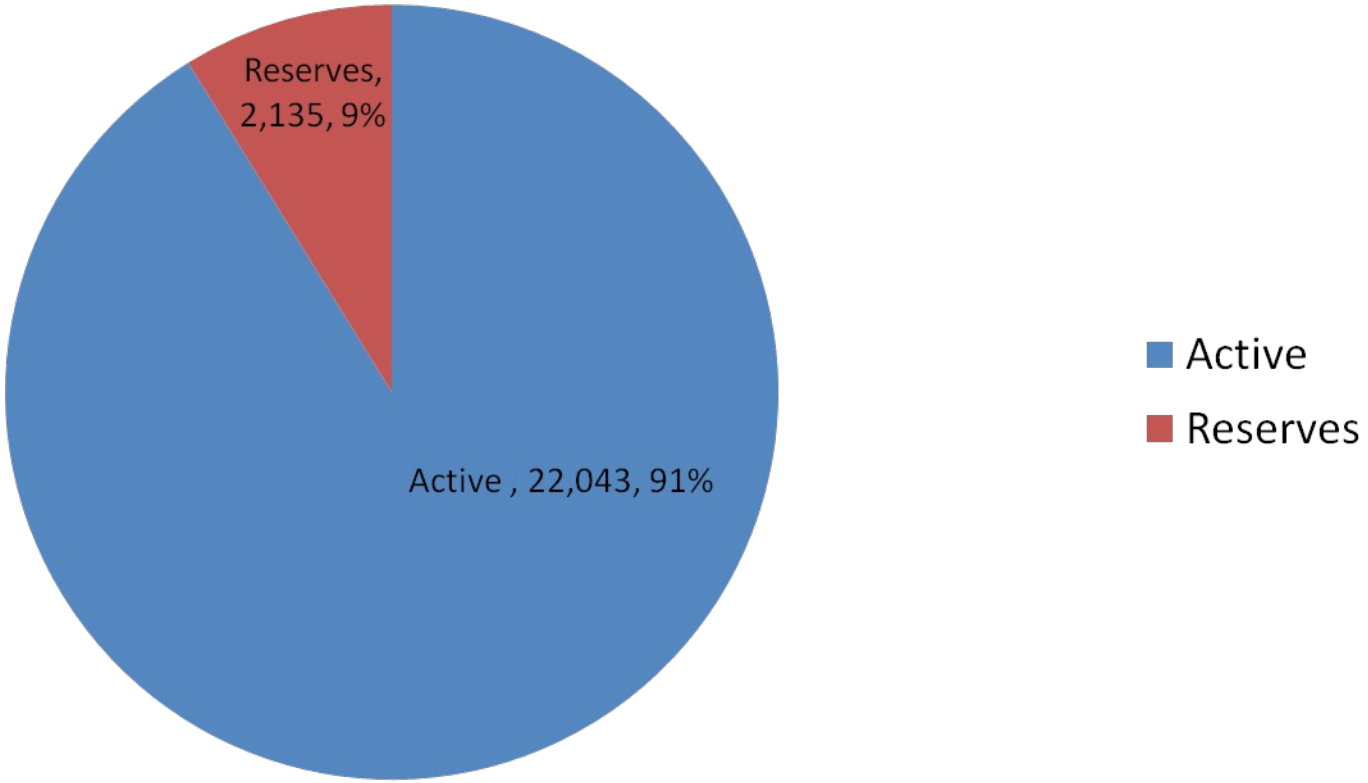
In October 2007 DoD established a formal definition of TBI as a “traumatically induced structural injury and/or physiologic disruption of brain function as a result of the external force.” This injury is indicated by the new onset or worsening of at least one of the following immediately after the event:

- Any period of or a decreased level of consciousness
- Any loss of memory for events immediately before or after the injury
- Any alteration of mental state at the time of injury (confusion, slowed thinking, etc)
- A focal neurological deficit (e.g. weakness, loss of balance, numbness, etc)
- An intracranial lesion

TBI Severity

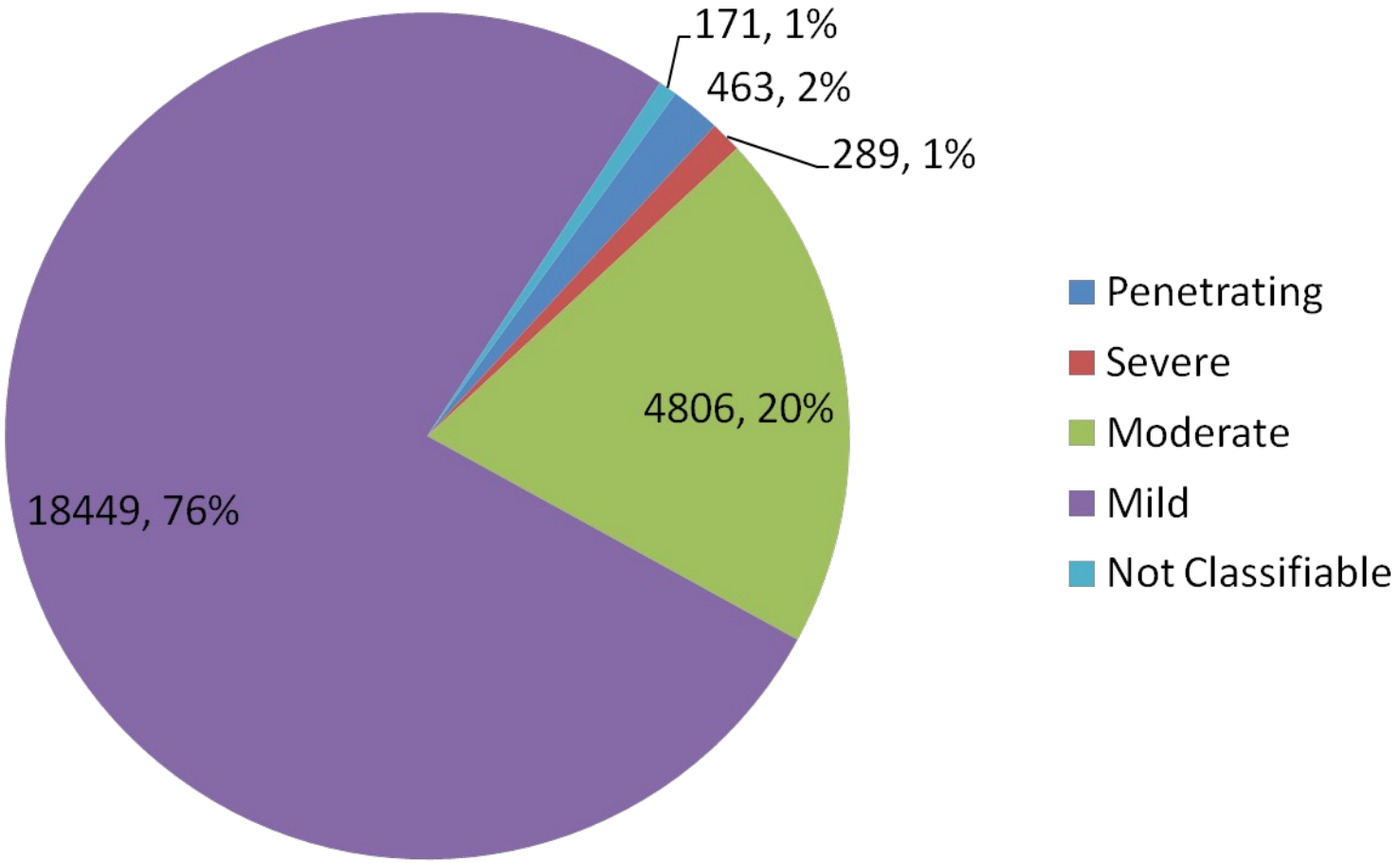
	Alteration of Consciousness	Loss of Consciousness	Post Traumatic Amnesia
Mild	Less than or equal to 24 hours	Up to and including 30 minutes	Less than 24 hours
Moderate	Greater than 24 hours	More than 30 minutes but less than 24 hours	Greater than 24 hours, less than 7 days
Severe	Greater than 24 hours	Greater than 24 hours	Greater than or equal to 7

Marine TBI by Components Breakdown N=24,178



Data Source: DVBIC.org. Data are the official cumulative count of unique service members with a TBI reported to the AFHSC between 2000-2009 inclusive

TBI Severity
N=24,178



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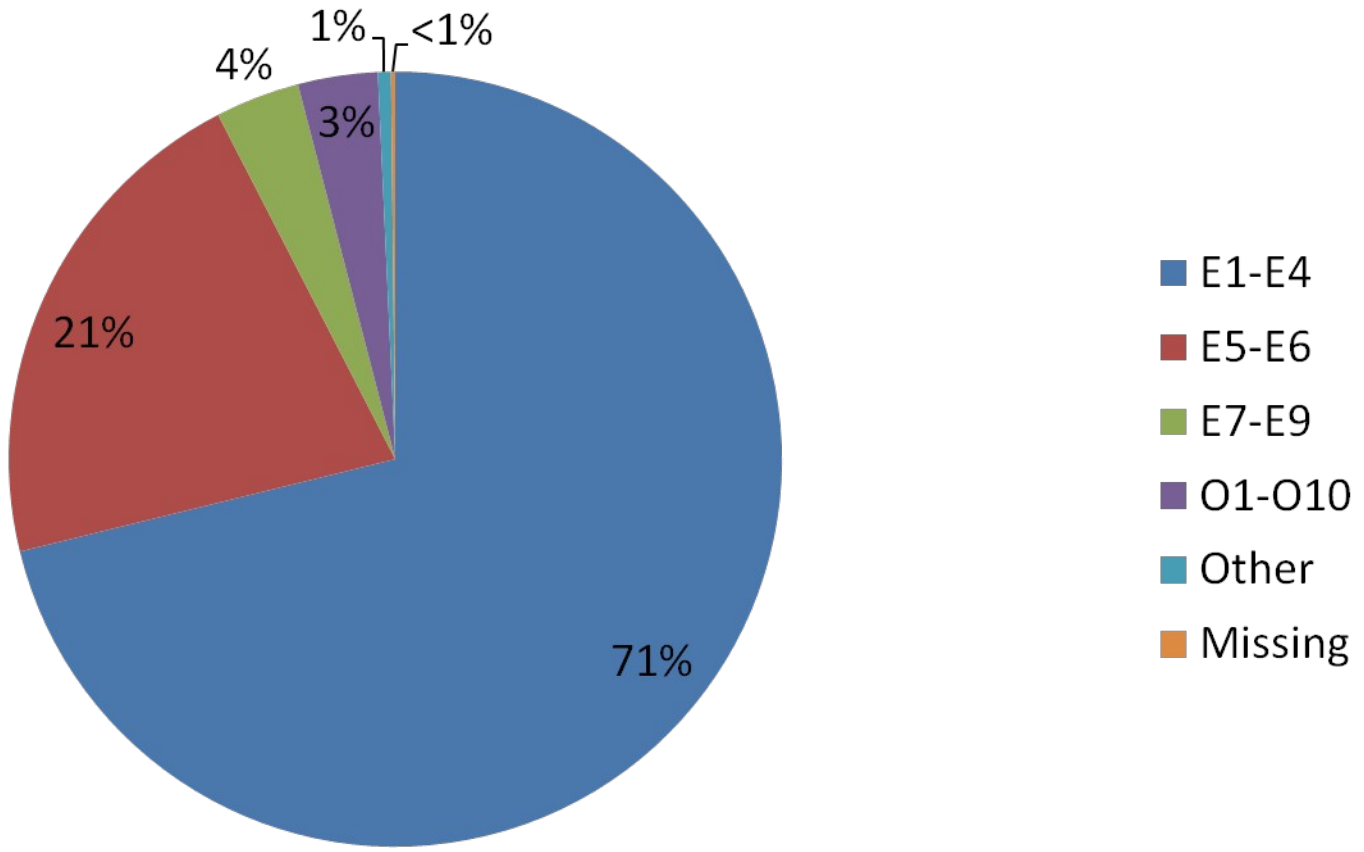
TBI by Pay Grade



These frequencies reflect a detailed small subset of the official TBI database, wherein pay grade (N=8,851) was reported to the DVBIC office of TBI surveillance

Marine Resiliency Study (MRS)

		mTBI defined by LOC <30 min. or PTA ≤24 hrs.
Any prior TBI established by interview		482 (47%)
Number of prior TBIs	**1**	292 (28%)
	2-4	185 (18%)
	5+	5 (0.5%)
Setting of prior TBIs	**Deployment-related**	43 (4%)
	All other settings	439 (42%)

IN-THEATER mTBI MANAGEMENT

- **Service members with high risk exposures or actual concussions require medical clearance recommendation prior to going off the FOB**
- **High risk exposures require detailed medical evaluation & clearance recommendation by healthcare provider**
- **Similar to aviation incident actions - automatic “grounding” & medical assessment for those meeting criteria**
- **Provides easy to apply “symptom check” for leaders to facilitate for continuous screening by those who know their people best**
- **Documents event for possible long-term care or admin uses**

Upcoming Policies

- DoD DTM
- CENTCOM
- I MEF

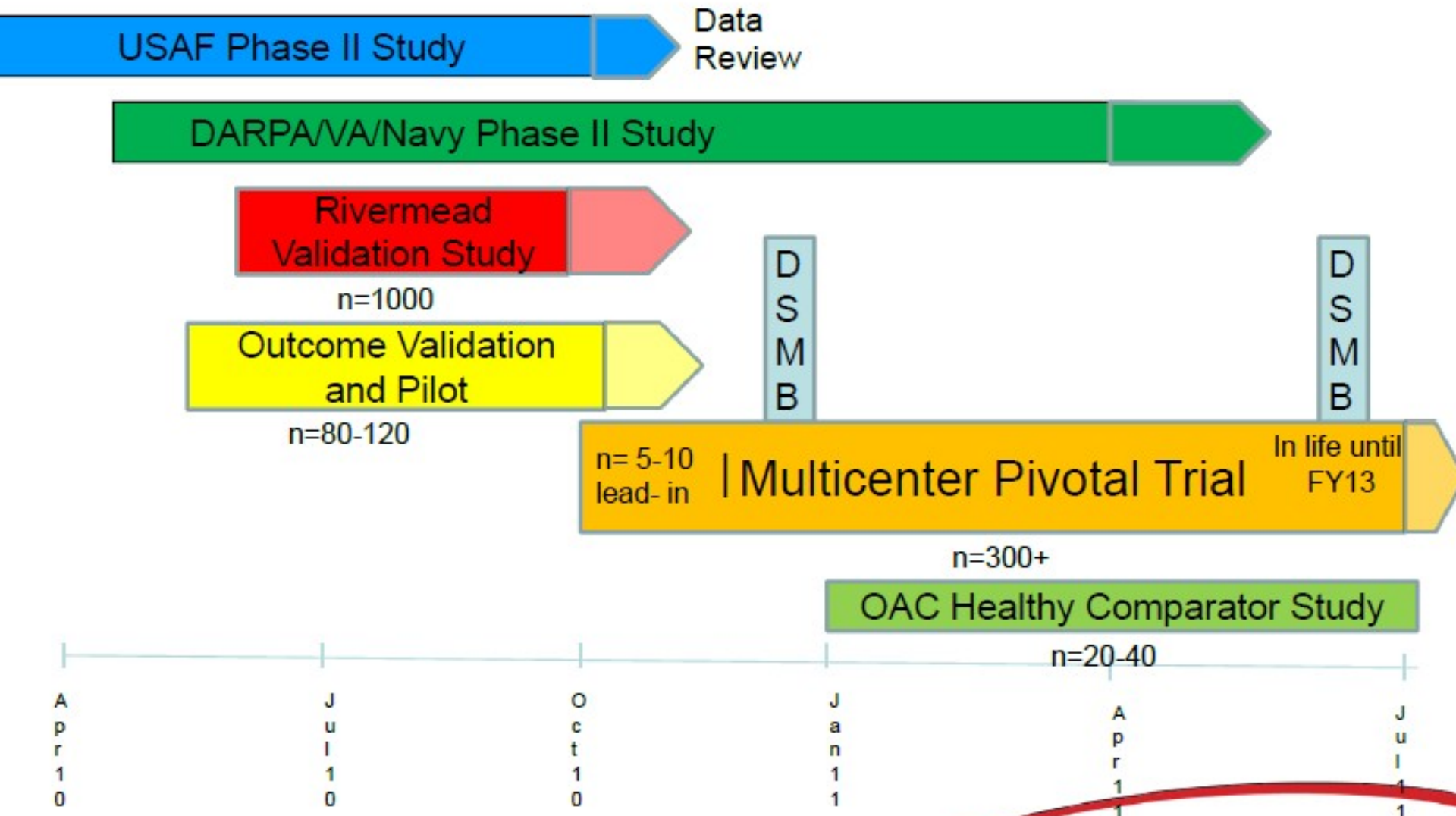
	MEB-A Policy (followed by IMEF fwd)	DTM (draft) Guidance	IMEF (draft) Guidance
Medical Evaluations	**No specific guidance**	**Mandatory for all personnel with specific "exposures" (vehicle event, within 50 meters of blast, blow to head, witnessed Loss of Consciousness (LOC))**	**Mandatory for all personnel with specific "exposures" (vehicle event, within 50 meters of blast, blow to head, witnessed LOC)**
Data Capture	**No specific guidance**	**-Line reporting of all personnel sent for medical evaluations via CIDNE** **-Added emphasis on health record documentation**	**-Line reporting of all personnel sent for medical evaluations via CIDNE** **-Added emphasis on health record documentation**
First "Event"	**Concussion Diagnosed:** **-Grade I: Medical Officer evaluation prior to RTD*** **-Grade II/III: Medical Officer clearance prior to RTD but not sooner than one week.**	**All personnel exposed 24 hours rest after event required (can be waived by commanders if op tempo requires), rest required for those actually diagnosed with a concussion; Medical Officer evaluation prior to RTD for all with symptoms**	**All personnel exposed 24 hours rest after event required*, rest required for those actually diagnosed with a concussion; Medical Officer evaluation prior to RTD for all with symptoms** ***can also be waived in rare op tempo circumstances.**
Multiple Concussions	**-Second concussion in deployment (any grade): restricted to FOB until RTD by a medical officer, but no sooner than 2 after injury** **concussion in ment (any**	**-Second concussion in 12 months (any grade): restricted to FOB until RTD by a medical officer, but no sooner than 1 week after symptoms resolved** **-Third concussion in 12 months (any grade): restricted to FOB until**	**-Second concussion in 12 months (any grade): restricted to FOB until RTD by a medical officer, but no sooner than 2 weeks after injury AND 1 week after symptoms resolved**** **-Third concussion in 12 months (any grade):**

***RTD = Return to Duty**

TBI Treatment

- Expectation Management
- Symptom Specific
- Cognitive Rehabilitation
- Emerging Therapies

DoD/VA HBO_2 mTBI Program



Pivotal Trial

- **Protocol Design:** Prospective multi-center, double blind, sham comparator, two-arm randomized control trial of hyperbaric oxygen in chronic mTBI
- **Overall Study PI:** Dr. Lin Weaver, LDS Hospital, Salt Lake City
- **Sites:** Study Coordinating Center, Salt Lake City
  DCoE Outcomes Assessment Center: Colorado Springs
  Naval Hospital Camp Pendleton
  Naval Hospital Camp Lejeune
  Evans ACH, Ft. Carson
  Darnall ACH, Ft. Hood or other TBD
  Wilford Hall/Brooks City Base* (after completion of current trial)

DoD DOTMLPF Analysis

- Doctrine: DTM and Vision Statement developed. Hold and treat in theater challenges current COCOM doctrine.
- Organization: Service medical departments chiefly involved now. Joint approach needs to be emphasized as well as enhanced collaboration between Services and between Line/Medical.
- Training: Training initiatives by Services are robust but documented impact of training is generally lacking. Medical training ahead of leadership training. Limited metrics.
- Materiel: Materiel needs modest in theater although some gaps; MTFs generally adequately resourced
- Leadership and Education: Senior leadership engaged. Mid-level leadership training has not been well emphasized until recently. Non-medical tracking responsibilities and tools need additional attention.
- Personnel: Qualified personnel are available. Optimal distribution of these personnel still without consensus.
- Facilities: Facilities requirements for hold and treat; bandwidth requirements for full electronic health record use.